

REMARKS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments, and the following remarks.

The amendments to this patent application are as follows. Amendments have been made to the drawings, the Specification, the Abstract, and the claims so as to overcome all of the various formal rejections by the Patent Examiner.

The amendments to the drawings are to cancel the drawings now on file and to replace them with a revised set of drawings for FIG. 1 to 11. These revised drawings have deleted any reference to a total of only 10 drawing sheets and have been amended to refer to a total of 11 drawing sheets. Also these revised drawings have used "Prior Art" to identify each one of FIGS. 3a, 3b, 10a and 10b.

The Substitute Specification has been amended as follows. On Page 1, the Substitute Specification has been amended to delete any reference to the PCT patent application, as required by the Patent Examiner. The Substitute Specification on Page 30

has been amended in order to correct the spelling of the word "photometric". The Substitute Specification on Page 32 has been amended to refer to "figure 1" in line 6. The Substitute Specification on Page 39 has been amended to revise the equations to show larger print for the subscripts.

The Abstract of the Disclosure has been amended to delete "legal phraseology" and "purported merits", objected to by the Patent Examiner. Thus the word "said" has been changed to "the". Also the language "which are useful" and "that can be used", have been cancelled.

The amendments to the claims are as follows.

The Patent Examiner had objected to claim 92 in line 3, because the terminology "the infrared active components" lacks clear antecedent basis. Thus claim 92 has now been amended to provide proper antecedent basis.

Claim 96 has been amended to correct a minor typographical error concerning the density.

The Patent Examiner had objected to claim 98, in lines 17-18, because the terminology "the radiation receiver" has a different antecedent basis which is "at least one radiation receiver". Thus claim 98 has now been amended to provide the proper antecedent basis.

The Patent Examiner objected to claim 105, in lines 5 and 7, because reference numerals were not deleted. Thus claim 105 has been amended in order to delete these reference numerals.

The Patent Examiner objected to claim 108, in lines 2-4 of this claim which now recites "...wherein the probe cell is sweepable with an infrared inactive gas, preferably for carrying out a null measurement..." which is still allegedly indefinite because it is not clear as to the range of the probe cell being swept with an infrared inactive gas. Thus claim 108 has been amended to delete the "preferably" terminology.

The Patent Examiner has repeated his objection with respect to the terminology of industry standards being employed in claims 87, 88, 89 and 94.

With regard to the formal rejection by the Patent Examiner regarding these claims, relating to the use of standard calculation methods, the following should be noted:

The standard calculation methods used in the present patent application are both shown in ISO 12213, specifically AGA8-92DC in ISO 12213-2 and GERG in ISO 12213-3. No English version of the DVGW working paper is known, but it is derived from 12213. This means that the English language document ISO 12213 is the relevant document. Enclosed is a copy of ISO 12213 in English.

At present, only the two methods mentioned are of practical significance, since they produce the best results. An older method is the method according to AGA NX19, which is allowed to be used only at low pressures, for example. However, a new GERG2 method is currently being developed, which is superior to the existing equations and is also supposed to be elevated to a standard. Moreover, the time when this will happen is not known as yet. However, this method will differ from the previous method also in terms of the designation. Hence the uncertainty that exists from the point of view of the Patent Examiner, with regard to the scope of the standard referred to, in each instance, should actually no longer exist. It is pointed out to

the Patent Examiner, with regard to the enclosure, that it is true that new standards can be developed. These new standards are also being used in place of the old standards, so that even in the relevant art, no lack of clarity can occur with regard to the standard that is actually meant. For these reasons, the formal ground rejection with regard to the precise content of the claims is respectfully submitted to have been overcome.

A restriction of the claims only to the methods mentioned is not necessary, since there is no prior art rejection. Also one skilled in the art would clearly understand the meaning of all the art recognized terminology.

However, the standard calculation method, as an iteration method according to the present invention, is also completely independent of the real gas calculation method actually being used. Instead, any algorithm for describing the real gas behavior of natural gas that yields one of the following variable is suitable:

real gas factor Z = compression factor Z

compressibility K = compressibility ratio K

In response to the Advisory Action dated July 8, 2004, claim 96 has been corrected, and PTO Form 1449 has been provided listing ISO 12213 in English.

Based upon all of the above-discussed amendments to the Abstract, the Specification, the drawings, and all the claims, the present patent application is now in complete compliance with all the requirements of 35 U.S.C. 112. Withdrawal of this ground of rejection is respectfully requested.

A prompt notification of allowability is respectfully requested.

Respectfully submitted,

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- Enclosures: 1) Drawing Replacement Sheets for FIG. 1 to 11.
2) Copy of ISO 12213 in English
3) PTO Form 1449
4) Copy Petition One Month Extension of Time

Express Mail NO. EV 535 948 955 US

Date of Deposit: July 28, 2004

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10, on the date indicated above, and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


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